Proposal for Use of the JLab FEL by an Independent Investigator

In order to guide us in the selection of experiments for the J-Lab FEL we would like some information from those seeking beamtime. The main purpose of this information is to identify and clarify the meshing of the proposed program with our facility. Note, that we are not asking for a repeat funding proposal. It is assumed that you already have funding. Also note that we regard a visit to the facility prior to the first run as extremely important.

This is a new proposal ____: Request for time against existing proposal # _____

Today's Date _____: Spokesperson : _____

1. Proposal Title and Motivation:

2. Need for the FEL and feasibility:

3. Source Requirements:

Wavelength: _____ Time-structure: _____

Micro-pulse power, repetition rate, and/or average power _____

_____

4. Beamtime Required:

Number of 8 hour shifts needed for this proposal: _____This cycle: _____

Preferred dates: _____ Unacceptable dates: _____

5. Experimental Details and Experience:

6. Goals and Scope:

7. Information About Participants Other than Spokesperson:

Name	Mailing Address	Affiliation (if different from mailing address)	Phone	E-mail

8. Will your research involve the use of human subjects, human-derived samples, or laboratory animals? _____

9. Is any aspect of your research proprietary? _____

Send completed proposal to: Gwyn P. Williams, FEL Basic Research Manager, 12000 Jefferson Avenue – MS-7A, Newport News, VA 23606. Tel: (757) 269-7521 Fax: (757) 269-5024. e-mail: gwyn@jlab.org

Guidelines

1. Title and Motivation for Experiment.

Briefly describe the science as it relates to the experiment. e.g. "The vibrational dynamics of hydrogen on the surface of a thin Cu film is different from that of hydrogen on bulk Cu and not understood by present theories. We propose to perform transient bleaching experiments to determine the temperature dependence of the vibrational lifetime for well characterized single crystal thin films of Cu grown epitaxially on TiO2". Not "We plan to measure the vibrational dynamics of hydrogen on thin Cu films as these are important in materials science". If known, a discussion of the similarities and differences between your proposed research and closely related research currently being planned or carried out by others.

2. Need for the FEL and feasibility.

Explain why this experiment cannot be performed using a conventional laser. Explain why it is feasible at the FEL. Sometimes data taken using less bright or powerful sources can be shown as examples - for example "With a conventional Ti-saphire laser we were able to obtain the data shown in Fig. A, but with the 100 times increase in power of the FEL our signal to noise should increase by 100 so that fine structure can be revealed".

3. Source Requirements.

Describe as specifically as possible.

4. Beamtime Required

We require details of how many shifts are expected to be needed. In this regard, at present we run 2 shifts per day, and 4 days is considered typical for each run period, of which there may be 3 or 4 per year. However, ask for what you really think you would need.

5. Experimental Details and Experience.

Give details of how the experiment will be carried out, including information about equipment that you would bring, e.g. cryostats, detectors. In this section, tell us about your own experience with similar experiments. Also try to give some idea about setting-up time versus measuring time. This may help us to schedule multiple users by interleaving.

6. Goals and Scope.

Present the goals and scope of the first and subsequent visits. Make these realistic, it is not necessary to inflate the amount of time needed for an experiment.